VIDE-V29955

SCHALTBILD

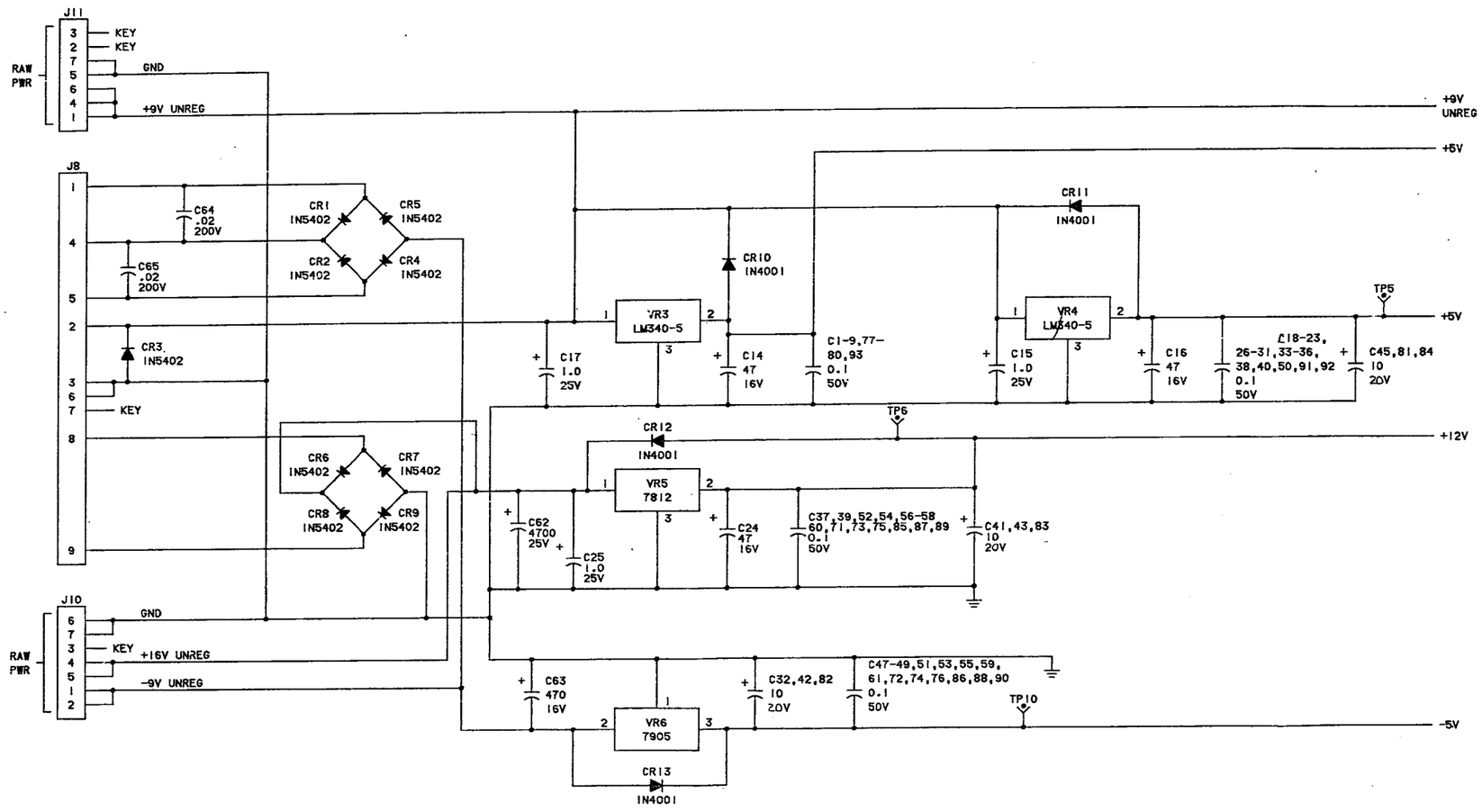
COMMODORE

3016/3032

ENGLISCH

1518-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		



UNLESS OTHERWISE SPECIFIED TOLERANCES ON: DECIMALS .X ±.1 .XX ±.02 .XXX ±.005 ANGLES ±0°30' — DRAWN BY: — DATE — CHKD: — ENGR: — APPR: — MATERIAL: — USED ON — NEXT ASSY — FINISH:

commodore

LOGIC DIAGRAM
DYNAMIC PET 3032
VOLTAGE REGULATOR

SIZE D · 320349 · REV E

SCALE — SHEET 9 OF 9

BRUNO GRAPHICS/ACCUPRESS REORDER NO. A-1077

/i5990-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		

+5V
R44
1K
PULLUP 1
6,7
LSD7
LOAD SR
INIT
F9 74S74
74LS00
74LS08
74LS20
VIDEO
VIDEO ON
J7
RELOAD
HORZ DISP ON
NEXT
E11 74LS165
CLK8
LOAD SR
F10 6316 CHARACTER ROM
GRAPHIC
RA7
RA9
LSDØ
LSD1
LSD2
LSD3
LSD4
LSD5
LSD6
TV READ
LO=READ
E8 74LS244
SDØ
SD1
SD2
SD3
BDØ
BD1
BD2
BD3
VIDEO LATCH
F9 8-BIT LATCH 74LS373
SD4
SD5
SD6
SD7
BD4
BD5
BD6
BD7
E7 74LS244
TV RAM R/W
LO=WRITE
SAØ-9 BUS
F8 2114 1KX4 RAM
F7 2114 1KX4 RAM
SAØ
SA1
SA2
SA3
SA4
SA5
SA6
SA7
SA8
SA9

UNLESS OTHERWISE SPECIFIED TOLERANCES ON: DECIMALS .X ±.1 .XX ±.05 .XXX ±.010 ANGLES ±1°
DRAWN BY: DATE
CHKD:
ENGR:
APPR:
MATERIAL:
FINISH:
USED ON
NEXT ASSY

commodore

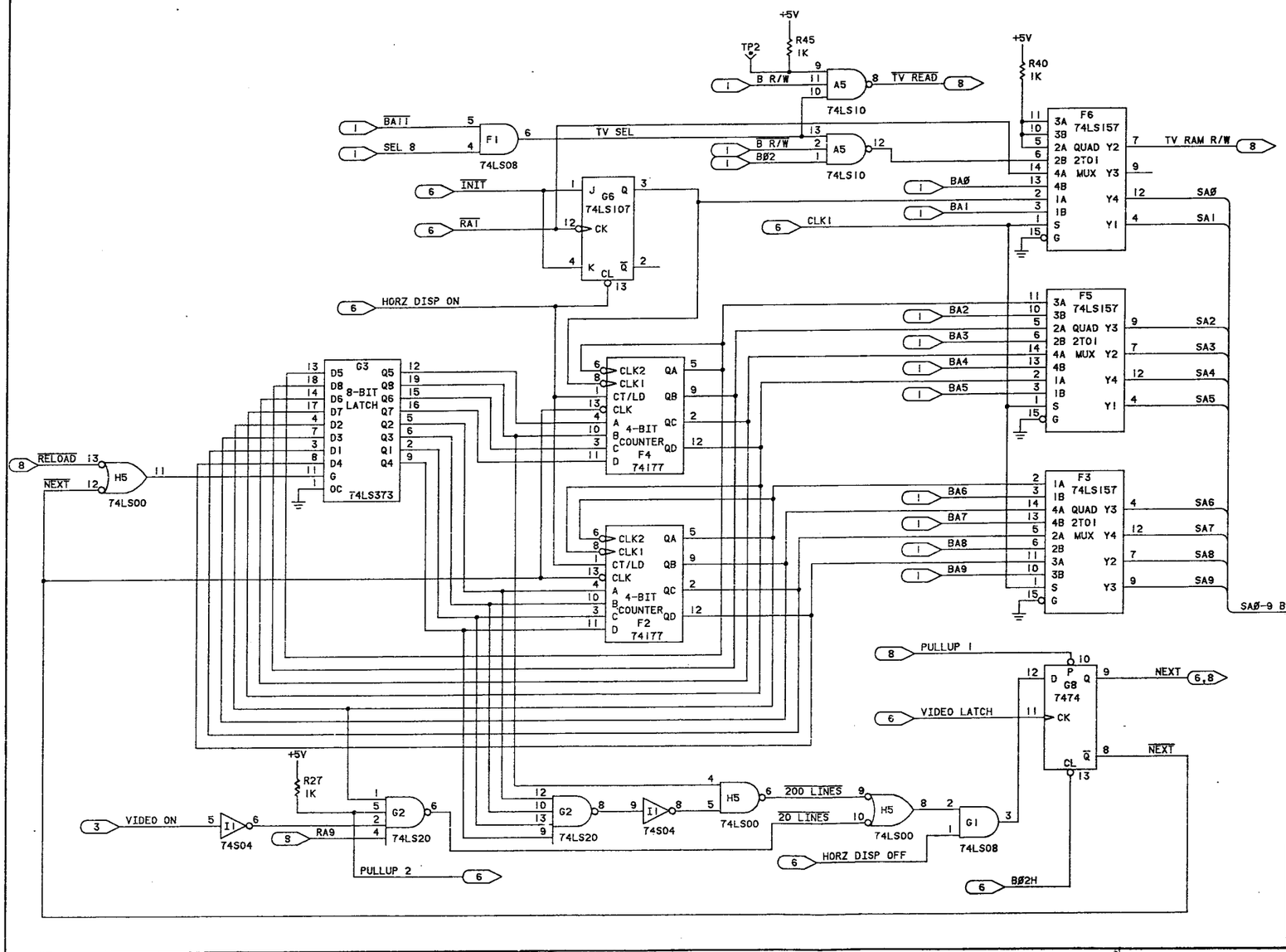
LOGIC DIAGRAM
DYNAMIC PET 3032
DISPLAY RAMS

SIZE D | 320349 | REV E
SCALE | SHEET 8 OF 9

© BISHOP GRAPHICS/ACCUPRESS REORDER NO. A 1477

/15989-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		



UNLESS OTHERWISE SPECIFIED TOLERANCES ON: DECIMALS X .XX .XXX ∠°	DRAWN BY:	DATE	commodore
MATERIAL:	CHKD:		LOGIC DIAGRAM DYNAMIC PET 3032 DISPLAY LOGIC
FINISH:	ENGR:		
	APPR:		
	USED ON	NEXT ASSY	SIZE D 320349 REV E
			SCALE —— SHEET 7 OF 9

© BISHOP GRAPHICS/ACCUPRESS REPRODUCE NO. A-1477

15988-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		

Y1 16MHZ
C44 22PF, 200 V
16MHZ CLOCK
74S04 74S04
R8 270 TP8 TP9 R7 270
+5V R46 1K
74S04 G1 74LS08
8 PHASES OF CLK1
H3 74LS164 8-BIT SHIFT REG
BØ2A BØ2B BØ2C BØ2D BØ2F BØ2G BØ2H BØ2
H4 74157 QUAD 2TO1 MUX
BØ2H 7 B R/W 1 BANK SEL 5 BØ2 1
H5 74LS00
MUXA 5
C5 74191 4-BIT COUNTER
CLK8 8 8MHZ CLK1 1,5,7 1MHZ
H2 74S04 BØ2B BØ2F BØ2G BØ2A
H1 74ST4 PULLUP 2 7
R39 39 RAS0 5
G1 74LS08
REFRESH ADDRESS COUNTER
H6 74LS107 H9 74LS93 4-BIT COUNTER
RA1 5 RA2 5 RA3 5 RA4 5 RA5 5 RA6 5
PULLUP 1 8
RA1 7
G9 74LS74 LOAD SR 8 LOAD SR 8
G1 74LS08 VIDEO LATCH 7,8
R42 27 CAS1 5
G7 74LS10
BA13 BA14 8K 16K ROW SELECT
R41 27 CAS0 5 VERT DRIVE 3
F1 H10 74LS08
H7 74LS107 HORZ DISP ON 7,8 HORZ DISP OFF 7
TP7
R12 1K +5V
INIT 7,8
7,8 NEXT
H8 74LS107
G10 74LS00 VERT DRIVE J7 KEY 3 6 2 4 7
VIDEO ON 3
HORZ DRIVE 3 DRIVE J7 5

© BISHOP GRAPHICS/OCCUPRESS RECORD NO. A1237

UNLESS OTHERWISE SPECIFIED TOLERANCES ON: DECIMALS .X ±.3 .XX ±.13 .XXX ±.8 ∠ ±2°
DRAWN BY: DATE
CHKD:
ENGR:
APPR:
MATERIAL:
FINISH:
USED ON NEXT ASSY

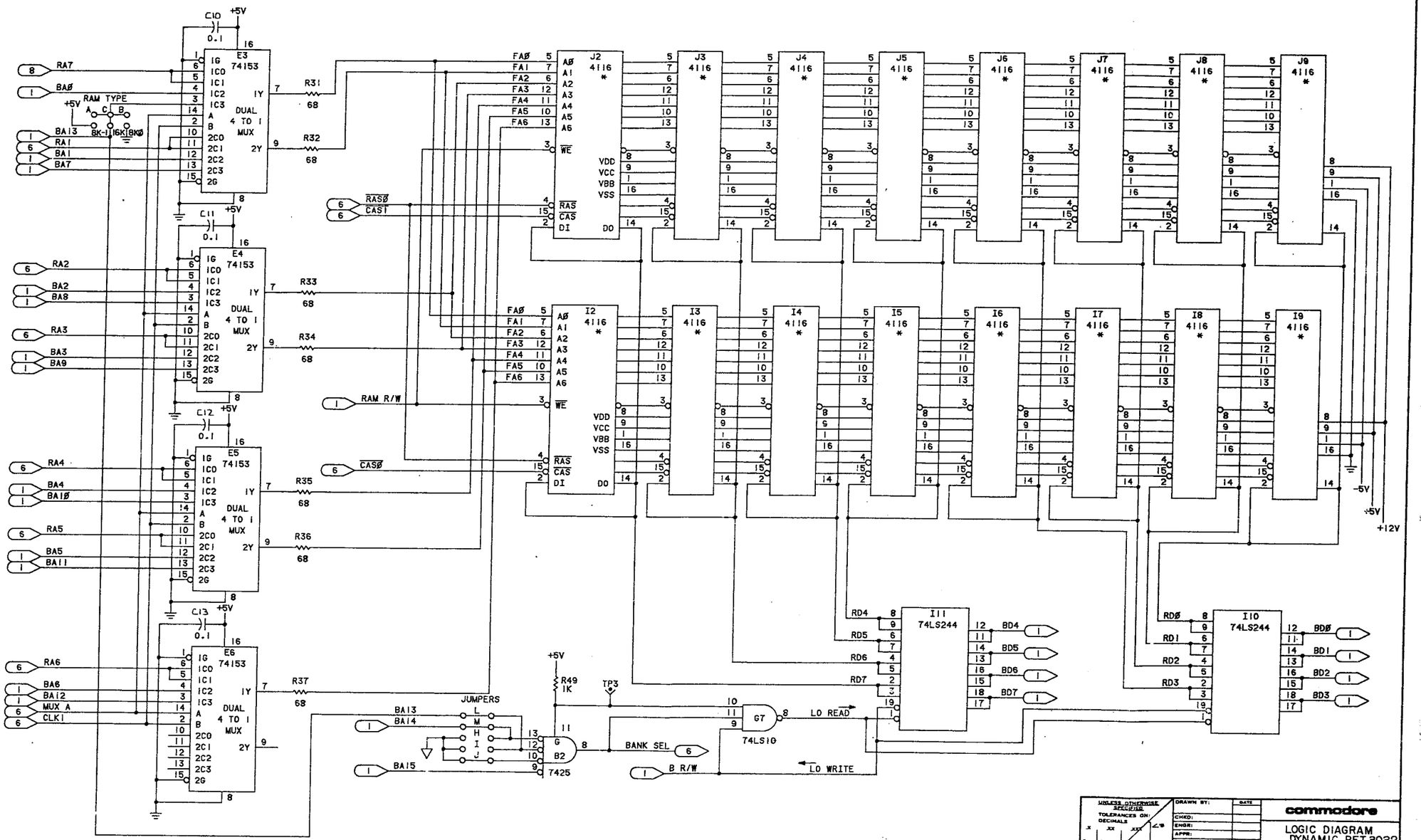
commodore

LOGIC DIAGRAM
DYNAMIC PET 3032
MASTER TIMING

SIZE D 320349 REV E
SCALE — SHEET 6 OF 9

/15991-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		



NOTE: ALL CIRCUITS MARKED * ARE FOR 32K MACHINE ONLY

© BISHOP GRAPHICS/ACCUPRESS RECORDS NO. A-1477

UNLESS OTHERWISE SPECIFIED TOLERANCES ON: DECIMALS x .xx .xxx ∠ ±

DRAWN BY: DATE
CHKD:
ENGR:
APPR:
MATERIAL:
FINISH:
USED ON
NEXT ASSY

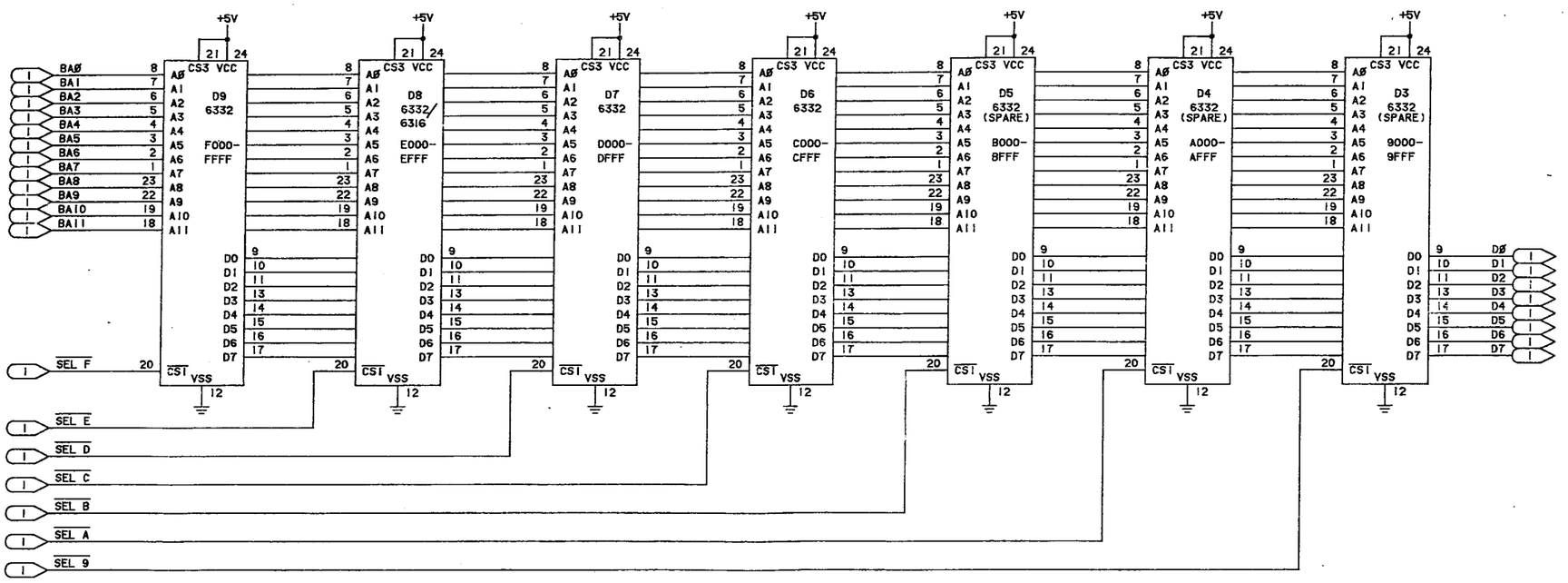
commodore

LOGIC DIAGRAM
DYNAMIC PET 3032
RAMS

SIZE D | 320349 | REV E
SCALE — | SHEET 5 OF 9

/16050-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		

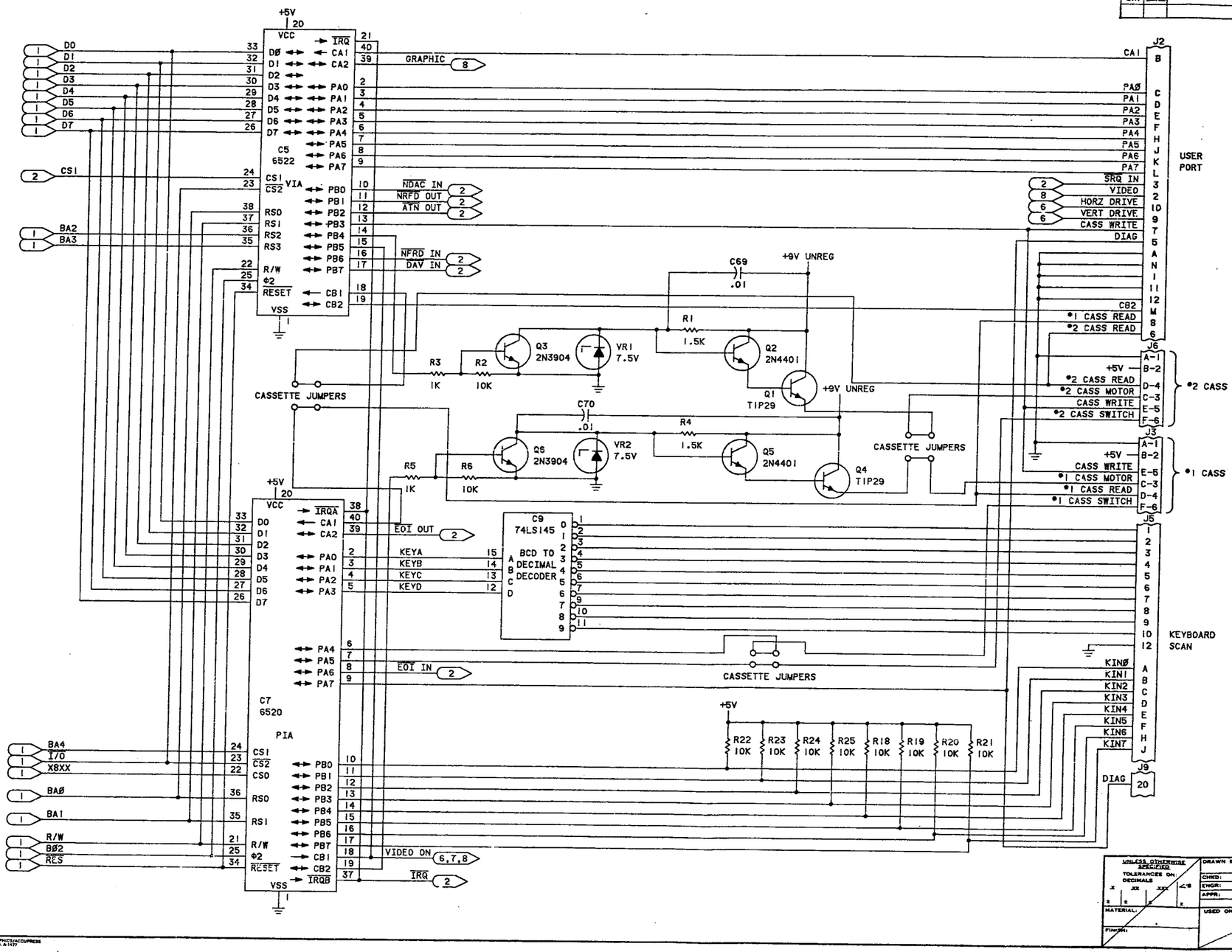


UNLESS OTHERWISE SPECIFIED TOLERANCES ON: DECIMALS .X ±.1 .XX ±.05 .XXX ±.010 ANGLES ±1°	DRAWN BY:	DATE	commodore
	CHKD:		LOGIC DIAGRAM DYNAMIC PET 3032 ROMS
	ENGR:		
	APPR:		
MATERIAL:	USED ON	NEXT ASSY	SIZE D 320349 REV E
FINISH:			SCALE —— SHEET 4 OF 9

© COMMODORE GRAPHICS/OCCUPIED REVISION NO. A1277

/16117-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		

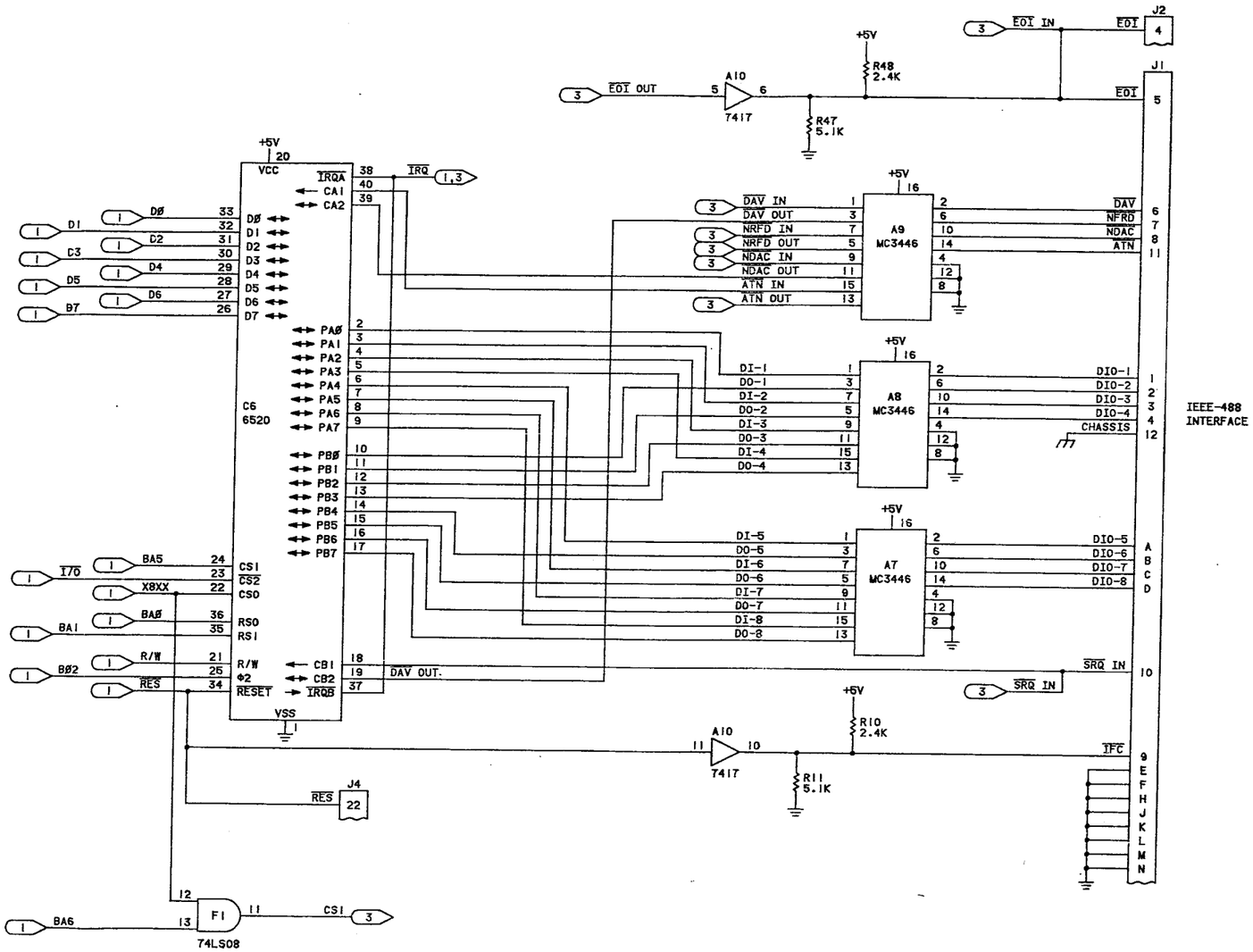


UNLESS OTHERWISE SPECIFIED
TOLERANCES ON DECIMALS
DRAWN BY:
CHKD:
ENGR:
APPR:
MATERIAL:
USED ON
NEXT ASSY
commodore
LOGIC DIAGRAM
DYNAMIC PET 3032
CASSETTE & KEYBOARD
SIZE D
320349
REV E
SCALE
SHEET 3 OF 9

© BISHOP GRAPHICS/ACCUPRESS REORDER NO. A-1477

115986-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		



UNLESS OTHERWISE SPECIFIED	DRAWN BY:	DATE
TOLERANCES ON: DECIMALS x .xx .xxx ∠°	CHKD:	
MATERIAL:	ENGR:	
FINISH:	APPR:	
	USED ON	NEXT ASSY

commodore

LOGIC DIAGRAM
DYNAMIC PET 3032
IEEE-488 INTERFACE

SIZE		REV
D	320349	E
SCALE	SHEET 2 OF 9	

© BISHOP GRAPHICS/ACCUPRESS
REORDER NO. A 1477

/15987-2

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
A		PRODUCTION RELEASE PER ECO 975	5-1979	
B		REVISED PER ECO 1135	9-1979	
C		REVISED PER ECO 1162	9-1979	
D		REV PER ECO 1479	1-1980	
E		REV PER ECO 1769	3-1980	

MEMORY EXPANSION

BUFFERED DATA BUS

BUFFERED ADDRESS BUS

MEMORY EXPANSION

UNLESS OTHERWISE SPECIFIED TOLERANCES ON DECIMALS .X ±.1 .XX ±.05 .XXX ±.010 ANGLES ±1°

MATERIAL:

FINISH:

DRAWN BY: J. Soto 4/5/79

ENGR: [illegible] 5/4/79

APPR: [illegible] 5/4/79

USED ON

NEXT ASSY

320351

commodore

LOGIC DIAGRAM
DYNAMIC PET 3032
UP-MEMORY EXPANSION

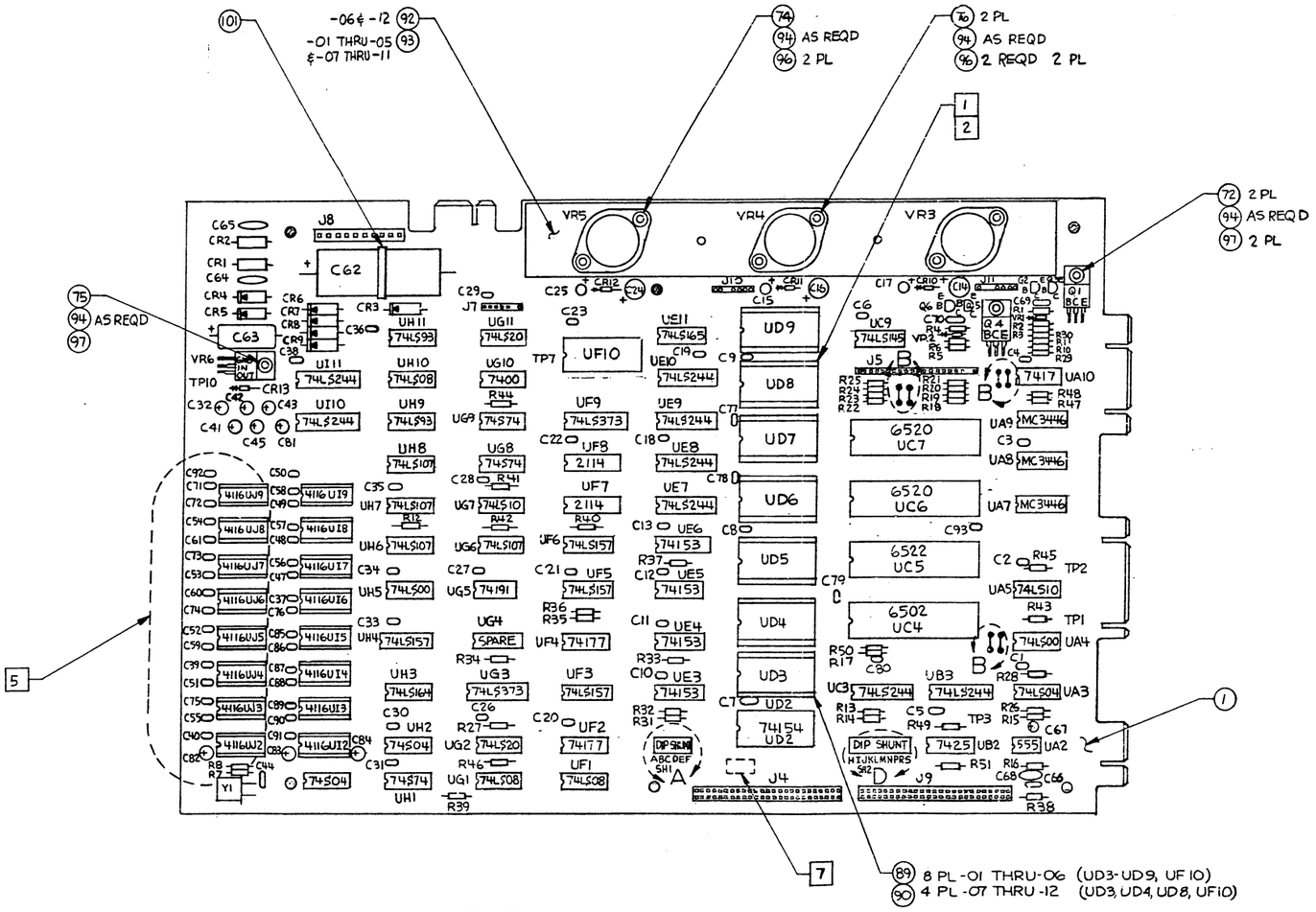
SIZE D | 320349 | REV E

SCALE —— | SHEET 1 OF 5

BISHOP GRAPHICS/ACCUPRESS REPRINT NO. A-1277

VIDE-V29955 / DRUCK9

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		


101
-06 & -12 (92)
-01 THRU -05 & -07 THRU -11 (93)
74
94 AS REQD
96 2 PL
76 2 PL
94 AS REQD
96 2 REQD 2 PL
1
2
72 2 PL
94 AS REQD
97 2 PL
75
94 AS REQD
97
VR5
VR4
VR3
J8
J7
J13
J11
C62
C63
C64
C65
C69
C15
C6
C23
C29
C25
C24
C16
C17
C14
Q1
Q2
Q3
Q4
VD1
VD2
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
R19
R20
R21
R22
R23
R24
R25
R26
R27
R28
R29
R30
C1
C2
C3
C4
C5
C7
C8
C9
C10
C11
C12
C13
C18
C19
C20
C21
C22
C26
C28
C30
C31
C32
C33
C34
C35
C36
C38
C39
C41
C43
C44
C45
C50
C51
C52
C53
C54
C57
C59
C60
C61
C73
C74
C75
C78
C79
C80
C81
C82
C84
C85
C86
C87
C88
C89
C90
C91
C92
C93
CR1
CR2
CR3
CR4
CR5
CR6
CR7
CR8
CR9
CR10
CR11
CR12
CR13
VR6
TP10
TP1
TP2
TP3
TP7
Y1
J5
J9
U4
UA2
UA3
UA4
UA5
UA7
UA8
UA9
UA10
UB2
UB3
UC3
UC4
UC5
UC6
UC7
UC9
UD2
UD3
UD4
UD5
UD6
UD8
UD9
UE3
UE4
UE5
UE6
UE7
UE8
UE9
UE10
UE11
UF1
UF2
UF3
UF4
UF5
UF6
UF7
UF8
UF9
UF10
UG1
UG2
UG3
UG4
UG5
UG6
UG7
UG8
UG9
UG10
UG11
UH1
UH2
UH3
UH4
UH5
UH6
UH7
UH8
UH9
UH10
UH11
UI1
UI10
UI11
UJ1
UJ2
UJ3
UJ4
UJ5
UJ6
UJ7
UJ8
UJ9
UJ10
R31
R32
R33
R34
R35
R36
R37
R38
R39
R40
R41
R42
R43
R44
R45
R46
R47
R48
R49
R50
R51
R52
R53
R54
R55
R56
R57
R58
R59
R60
R61
R62
R63
R64
R65
R66
R67
R68
R69
R70

QUANTITY REQD PER PART / DASH NO. 12	11	10	09	08	07	06	05	04	03	02	01	ITEM	DS	PART NUMBER	DESCRIPTION	REF DES	BEND	NOTES
1	1	1	1	1	1	1	1	1	1	1	1	91	B	904150-06	IC SOCKET 40 PIN	UC4		
1	-	-	-	-	-	1	-	-	-	-	-	92	C	320268-02	HEAT SINK			
-	1	1	1	1	1	-	1	1	1	1	1	93	C	320268-01	HEAT SINK			
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	94	B	904907-01	HEAT SINK COMPOUND THER.			
												95						
6	6	6	6	6	6	6	6	6	6	6	6	96	B	906403-19	RIVET-DOME HEAD, OPEN END			
3	3	3	3	3	3	3	3	3	3	3	3	97	B	906404-04	RIVET-DOME HEAD, CLOSED END			
												98						
5	5	5	5	5	5	5	5	5	5	5	5	99	B	900402-09	CAP. TANTULUM 10µF 20V	C32,41,42,43, C45,C81-C84		SUBSTITUTE FOR ITEM 52
												100						
1	1	1	1	1	1	1	1	1	1	1	1	101	B	905051-01	CABLE TIE			
												102						
1	1	1	1	1	1	1	1	1	1	1	1	103	B	900556-02	CRYSTAL 16MHZ.	Y1		SEE ITEM 104 FOR SUBSTITUTE
S	S	S	S	S	S	S	S	S	S	S	S	104	B	900557-01	CRYSTAL 16 MHZ.	Y1		SUBSTITUTE FOR ITEM 103
												105						
8	8	-	-	-	-	8	8	-	-	-	-	106	B	901470-02	IC 8K DYNAMIC RAM 4108-30 MOSTEK	U12-U19		8 DEVICES USED FOR 8K VERSION [4]
5	5	-	-	-	-	5	5	-	-	-	-	107	B	901470-03	IC 8K DYNAMIC RAM 4108-31 MOSTEK	U12-U19		8 DEVICES USED FOR 8K VERSION [4]
-	-	-	5	-	5	-	-	-	5	-	5	108	B	901470-02	IC 8K DYNAMIC RAM 4108-30 MOSTEK	U12-U19		16 DEVICES USED FOR 16K VERSION FOR ITEM 33
-	-	-	5	-	5	-	-	-	5	-	5	109	B	901470-03	IC 8K DYNAMIC RAM 4108-31 MOSTEK	U12-U19		16 DEVICES USED FOR 16K VERSION FOR ITEM 33
												110						
5	5	5	5	5	5	5	5	5	5	5	5	111	B	901522-23	74157 DATA SEL			MAY BE USED AS A SUBSTITUTE FOR ITEM 26
5	5	5	5	5	5	5	5	5	5	5	5	112	B	901522-27	74164 8-BIT PARALLEL OUTPUT			" " " " " " " ITEM 27
5	5	5	5	5	5	5	5	5	5	5	5	113	B	901522-22	7474 FLIP FLOP	UH1, UG8 UG7		" " " " " " " ITEM 15
5	5	5	5	5	5	5	5	5	5	5	5	114	B	901525-05	74S08 AND GATE	UG1		" " " " " " " ITEM 17
1	-	1	1	1	1	-	-	-	-	-	-	115	B	901465-23	6332-120 ROM (B000-BFFF)	UD5		
1	1	1	1	1	1	-	-	-	-	-	-	116	B	901465-20	6332-059F ROM (C000-CFFF)	UD6		
9	9	9	9	9	9	9	9	9	9	9	9	117	B	903335-20	HEADER ASSY, POLARIZED, (.100), 20 PIN	J5		SUBSTITUTE FOR ITEM 81
9	9	9	9	9	9	9	9	9	9	9	9	118	B	903335-67	, POLARIZED, (.100), 7 PIN	J11		SUBSTITUTE FOR ITEM 82
9	9	9	9	9	9	9	9	9	9	9	9	119	B	903335-37	, POLARIZED, (.100) 7 PIN	J10		SUBSTITUTE FOR ITEM 83
9	9	9	9	9	9	9	9	9	9	9	9	120	B	903335-07	, POLARIZED, (.100) 7 PIN	J7		SUB. FOR ITEM 84, ORIENT OMITTED PIN TO PIN 6 POSITION
9	9	9	9	9	9	9	9	9	9	9	9	121	B	903337-09	HEADER ASSY, (.156) 9 PIN	J8		SUB. FOR ITEM 85. REMOVE PIN 7 AT ASSY.
1	1	1	1	1	1	-	-	-	-	-	-	122	B	901465-21	6332-096 ROM (D000-DFFF)	UD7		
1	1	-	-	1	1	-	-	-	-	-	-	123	B	901447-29	6316-034 ROM (E000-E7FF)	UD8		[1]
6	-	-	-	-	-	6	-	-	-	-	-	124	B	320176-01	JUMPER WIRE (22 AWG)			
												125						
-	-	1	1	-	-	-	-	-	-	-	-	126	B	901474-02	6316-035 ROM	UD8		[2]
1	1	1	1	1	1	-	-	-	-	-	-	127	B	901465-22	6332-075 ROM (F000-FFFF)	UD9		

commodore

TITLE: DYNAMIC PET P.C. BOARD ASSEMBLY

DRWN BY: | DATE | ENGR: | DATE

CHKD: | APPR:

SIZE: B | 320351 | REV AL | SHT 5/6

VIDE-V29955 / DRUCK11

QUANTITY REQD PER PART / DASH NO.												ITEM	DS	PART NUMBER	DESCRIPTION	REF DES	BEND	NOTES
12	11	10	09	08	07	06	05	04	03	02	01							
14	14	14	14	14	14	14	14	14	14	14	14	59	B	901550-01	RESISTOR 1/4W 5% 1K OHMS	R3, R5,		
																R12-R14,		
																R27, R40,		
																R43-R46,		
																R49-R51		
2	2	2	2	2	2	2	2	2	2	2	2	60	B	901550-84	1M	R15, R16		
2	2	2	2	2	2	2	2	2	2	2	2	61	B	901550-85	2.4K	R10, R48		
												62						
2	2	2	2	2	2	2	2	2	2	2	2	63	B	901550-90	27	R41, R42		
1	1	1	1	1	1	1	1	1	1	1	1	64	B	901550-02	3.3K	R17		
1	1	1	1	1	1	1	1	1	1	1	1	65	B	901550-93	39	R39		
4	4	4	4	4	4	4	4	4	4	4	4	66	B	901550-58	470	R26, R28,		
																R29, R30		
8	8	8	8	8	8	8	8	8	8	8	8	67	B	901550-94	68	R31-R38		
2	2	2	2	2	2	2	2	2	2	2	2	68	B	901550-03	5.1K	R11, R47		
2	2	2	2	2	2	2	2	2	2	2	2	69	B	901550-76	RESISTOR 1/4W 5% 270 OHMS	R7, R8		
2	2	2	2	2	2	2	2	2	2	2	2	70	B	902658-01	TRANSISTOR NPN 2N3904	Q3, Q6		
2	2	2	2	2	2	2	2	2	2	2	2	71	B	902652-01	" NPN 2N4401	Q2, Q5		
2	2	2	2	2	2	2	2	2	2	2	2	72	B	902653-01	TRANSISTOR NPN TIP29	Q1, Q4		
												73						
1	1	1	1	1	1	1	1	1	1	1	1	74	B	901528-04	VOLT. REG. 7812 +12V / 1A - TO-3	VR5		
1	1	1	1	1	1	1	1	1	1	1	1	75	B	901529-03	" " 7905 -5V / 1A-TO-220	VR6		
2	2	2	2	2	2	2	2	2	2	2	2	76	B	901528-03	VOLT. REG. LM 340-5 +5V 1.5A-TO-3	VR3, VR4		FOR SUBSTITUTE SEE ITEM 77
S	S	S	S	S	S	S	S	S	S	S	S	77	B	901528-01	VOLT. REG. LM323	VR3, VR4		SUBSTITUTE FOR ITEM 76
1	1	1	1	1	1	1	1	1	1	1	1	78	B	904777-10	DIP SHUNT 10 PACK	SH2		6
1	1	1	1	1	1	1	1	1	1	1	1	79	B	904777-06	DIP SHUNT 6 PACK	SH1		6
S	S	S	S	S	S	S	S	S	S	S	S	80	B	320086-02	JUMPER	SH1, SH2		6
1	1	1	1	1	1	1	1	1	1	1	1	81	B	903331-20	HEADER ASSY. POLARIZED (.100) 20 PIN	J5		SEE ITEM 117 FOR SUBSTITUTE
1	1	1	1	1	1	1	1	1	1	1	1	82	B	903331-07	POLARIZED, (.100) 7 PIN	J11		SEE ITEM 118 FOR SUB. PIN 2 OMITTED, REMOVE PIN 3 AT ASSY
1	1	1	1	1	1	1	1	1	1	1	1	83	B	903326-07	(.100) 7 PIN	J10		SEE ITEM 119 FOR SUB. REMOVE PIN 3 AT ASSY
1	1	1	1	1	1	1	1	1	1	1	1	84	B	903331-07	POLARIZED, (.100) 7 PIN	J7		SEE ITEM 120 FOR SUB. ORIENT. OMITTED PIN TO PIN 6 POSITION
1	1	1	1	1	1	1	1	1	1	1	1	85	B	903316-09	HEADER ASSY (.156) 9 PIN	J8		SEE ITEM 121 FOR SUB. REMOVE PIN 7 AT ASSY
2	2	2	2	2	2	2	2	2	2	2	2	86	B	903345-25	HEADER ASSY, POST, STRAIGHT, DUAL ROW .100 CENTERS	J4, J9		50 PIN
												87						
												88						
4	4	4	4	4	4	8	8	8	8	8	8	89	B	904150-04	IC SOCKET 24 PIN	UD3-UD9, UF10		SEE ITEM 90 FOR SUBSTITUTE
S	S	S	S	S	S	S	S	S	S	S	S	90	B	904153-04	IC SOCKET 24 PIN	UD3-UD9, UF10		SUBSTITUTE FOR ITEM 89

commodore	TITLE: DYNAMIC PET P.C. BOARD ASSEMBLY	DRWN BY:	ENGR:	DATE	SIZE	320351	REV A	SH 1/6
		CHKD:	APPR:		B			

QUANTITY REQD PER PART / DASH NO.												ITEM	DS	PART NUMBER	DESCRIPTION	REF DES	BEND	NOTES
12	11	10	09	08	07	06	05	04	03	02	01							
2	2	2	2	2	2	2	2	2	2	2	2	32	B	901453-02	IC RAM 4K STATIC	UF7,UF8		400 NSEC
-	-	8	8	8	8	-	-	8	8	8	8	33	B	901470-01	4116 RAM 16K DYNAMIC	UI2-UI9		SEE ITEM 108 OR 109 FOR SUBSTITUTE
-	-	8	-	8	-	-	-	8	-	8	-	33	B	901470-01	4116 RAM 16K DYNAMIC	UU2-UU9		
1	1	1	1	1	1	1	1	1	1	1	1	34	B	901447-10	6316-004 ROM (CHAR. GEN.)	UF10		
-	-	-	-	-	-	1	1	-	-	1	1	35	B	901447-24	6316-011 ROM (E000-E7EE)	UD5		[1]
-	-	-	-	-	-	1	1	1	1	1	1	36	B	901465-01	6332-007 ROM (C000-CFFF)	UD6		
-	-	-	-	-	-	1	1	1	1	1	1	37	B	901465-02	6332-008 ROM (D000-DFFF)	UD7		
-	-	-	-	-	-	1	1	1	1	1	1	38	B	901465-03	6332-009 ROM (F000-FFFF)	UD9		
-	-	-	-	-	-	-	-	1	1	-	-	39	B	901474-01	6316-024 ROM CHAR. GEN.	UD8		[2]
1	1	1	1	1	1	1	1	1	1	1	1	40	B	901523-01	LM555 TIMER	UA2		
3	3	3	3	3	3	3	3	3	3	3	3	41	B	901524-01	IC MC 3446 INTFC BUS	UA7-UA9		
												42						
3	3	3	3	3	3	3	3	3	3	3	3	43	B	900010-38	CAPACITOR CERAMIC 0.01UF 50V	C66,69,70		
2	2	2	2	2	2	2	2	2	2	2	2	44	B	900010-37	CERAMIC 0.02UF 200V	C64,65		
1	1	1	1	1	1	1	1	1	1	1	1	45	B	900150-07	,POLY. FILM 0.1 UF 100V	C68		
1	1	1	1	1	1	1	1	1	1	1	1	46	B	900010-47	CERAMIC 22 PF 200V	C44		
1	1	1	1	1	1	1	1	1	1	1	1	47	B	900101-38	ELECT. 470UF 16V	C63		
3	3	3	3	3	3	3	3	3	3	3	3	48	B	900100-33	ELECT. 47UF 16V	C14,16,24		
1	1	1	1	1	1	1	1	1	1	1	1	49	B	900101-40	ELECT. 4700UF 25V	C62		
51	51	67	67	67	67	51	51	67	67	67	67	50	B	900020-01	DIPPED CERAMIC 0.1UF 50V	C1-C13		[5] SEE SH 6 ASSY DRAWING
																C18-C23		
																C26-C31		
																C33-C40		
																C47-C61		
																C71-C80		
																C85-C93		
4	4	4	4	4	4	4	4	4	4	4	4	51	B	900402-13	TANT. 1.0UF 25V	C15,17,25,67		
9	9	9	9	9	9	9	9	9	9	9	9	52	B	900108-31	CAPACITOR, ELEC. LOW LEAKAGE 10UF 25V	C32,41,42, C43,C45, C81-C84		SEE ITEM 99 FOR SUBSTITUTE
4	4	4	4	4	4	4	4	4	4	4	4	53	B	900750-01	DIODE IN4001 1A/50V	CR10-13		SEE ITEM 56 FOR SUBSTITUTE
9	9	9	9	9	9	9	9	9	9	9	9	54	B	900753-01	IN5402 3A/200V	CR1-9		
2	2	2	2	2	2	2	2	2	2	2	2	55	B	900941-01	ZENER 7.5	VR1,2		
5	5	5	5	5	5	5	5	5	5	5	5	56	B	900750-05	DIODE IN4005	CR10-13		SUBSTITUTE FOR ITEM 53
2	2	2	2	2	2	2	2	2	2	2	2	57	B	901550-69	RESISTOR 1/4W 5% 1.5K OHMS	R1, R4		
10	10	10	10	10	10	10	10	10	10	10	10	58	B	901550-20	" " 10K OHMS	R2 R6		
																R18-R25		

commodore

TITLE: DYNAMIC PET P.C. BOARD ASSEMBLY

DRWN BY:	DATE	ENGR:	DATE	SIZE		REV	SHT
CHKD:		APPR:		B	320351	AL	3/6

QUANTITY REQD PER PART / DASH NO.												ITEM	DS	PART NUMBER	DESCRIPTION	REF DES	BEND	NOTES
12	11	10	09	08	07	06	05	04	03	02	01							
1	1	1	1	1	1	1	1	1	1	1	1	1	D	320350-01	P.C. BOARD DYNAMIC PET			
REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	2	D	320349-01	LOGIC DIAGRAM			
1	1	1	1	1	1	1	1	1	1	1	1	3	B	901435-01	IC 6502 MPU	UC4		
2	2	2	2	2	2	2	2	2	2	2	2	4	B	901436-01	6520 PIA	UC6 UC7		
1	1	1	1	1	1	1	1	1	1	1	1	5	B	901437-01	6522 VIA	UC5		
2	2	2	2	2	2	2	2	2	2	2	2	6	B	901522-03	74177 BINARY PRESETABLE COUNT.	UF2,UF4		
1	1	1	1	1	1	1	1	1	1	1	1	7	B	901522-01	7417 HEX BUFFER	UA10		
1	1	1	1	1	1	1	1	1	1	1	1	8	B	901522-20	7425 NAND GATE	UB2		
1	1	1	1	1	1	1	1	1	1	1	1	10	B	901521-09	74LS145 BCD-TO DECIMAL DECODERS	UC9		
1	1	1	1	1	1	1	1	1	1	1	1	11	B	901522-21	74191 SYNC COUNTER	UG5		
1	1	1	1	1	1	1	1	1	1	1	1	12	B	901528-13	74154 4 TO 16 LINE DECODERS	UD2		
1	1	1	1	1	1	1	1	1	1	1	1	13	B	901522-04	7400 NAND GATE	UG10		
												14						
3	3	3	3	3	3	3	3	3	3	3	3	15	B	901525-09	74S74 FLIP-FLOP	UB1,UG8,UG9		ITEM 113 MAY BE USED AS A SUBSTITUTE
2	2	2	2	2	2	2	2	2	2	2	2	16	B	901525-01	74S04 SCHOTTKY HEX INV.	UI1,UH2		
1	1	1	1	1	1	1	1	1	1	1	1	17	B	901521-03	74LS08 AND GATE	UG1		ITEM 114 MAY BE USED AS A SUBSTITUTE
2	2	2	2	2	2	2	2	2	2	2	2	18	B	901521-01	74LS00 NAND GATE	UH4,UH5		
1	1	1	1	1	1	1	1	1	1	1	1	19	B	901521-02	74LS04 HEX INV.	UA3		
2	2	2	2	2	2	2	2	2	2	2	2	20	B	901521-03	74LS08 AND GATE	UH10,UF1,UH9		
2	2	2	2	2	2	2	2	2	2	2	2	21	B	901521-24	74LS10 NAND GATE	UA5,UG7		
2	2	2	2	2	2	2	2	2	2	2	2	22	B	901521-04	74LS20 NAND GATE	UG2,UG11		
2	2	2	2	2	2	2	2	2	2	2	2	23	B	901521-07	74LS93 COUNTER	UH9,UH11		
												24						
4	4	4	4	4	4	4	4	4	4	4	4	25	B	901521-08	74LS107 FLIP-FLOP	UG6,UH6		
																UH7,UH8		
4	4	4	4	4	4	4	4	4	4	4	4	26	B	901521-11	74LS157 DATA SEL	UF3,UF5		ITEM 111 MAY BE USED AS A SUBSTITUTE
																UF6,UH4		
1	1	1	1	1	1	1	1	1	1	1	1	27	B	901521-28	74LS164 8-BIT PARALLEL OUTPUT	UH3		ITEM 112 MAY BE USED AS A SUBSTITUTE
1	1	1	1	1	1	1	1	1	1	1	1	28	B	901521-12	74LS165 SHIFT REG.	UE11		
8	8	8	8	8	8	8	8	8	8	8	8	29	B	901521-13	74LS244 BUFFER	UB3,UC3		
																UE7,UE8		
																UE9,UE10		
																UI10,UI11		
4	4	4	4	4	4	4	4	4	4	4	4	30	B	901522-26	74153 DATA SELECTOR, MULTIPLEX.	UE3-UE6		
2	2	2	2	2	2	2	2	2	2	2	2	31	B	901521-29	74LS373 OCTAL D-TYPE LATCH	UF9,UG3		

commodore	TITLE: DYNAMIC PET P.C. BOARD ASSEMBLY	DRWN BY:	DATE	ENGR:	DATE	SIZE B	320351 R-V AL SHT 2/6
		CHKD:		APPR:			

PART NO.	DESCRIPTION
320351 -01	DYNAMIC PET P.C.B. ASSY, 16K GRAPHIC
-02	32K GRAPHIC
-03	16K BUSINESS
-04	32K BUSINESS
-05	DYNAMIC PET P.C.B. ASSY, 8K GRAPHIC
-06	DYNAMIC PET P.C.B. ASSY, WITH INTERNAL CASSETTE 8K GRAPHIC
-07	DYNAMIC PET P.C.B. ASSY, 16K GRAPHIC
-08	32K GRAPHIC
-09	16K BUSINESS
-10	32K BUSINESS
-11	DYNAMIC PET P.C.B. ASSY, 8K GRAPHIC
320351-12	DYNAMIC PET P.C.B. ASSY, WITH INTERNAL CASSETTE 8K GRAPHIC

REVISIONS

LTR	ZONE	DESCRIPTION	DATE	APPROVED
AG		REVISED & REDRAWN PER ECO 1850	9/29/80	
AH		REVISED PER ECO 1898	12/2/80	
AJ		REVISED PER ECO 1920	12/8/80	
AK		REVISED PER ECO 1928	12/8/80	
AL		REVISED PER ECO 2001	1/27/81	

7 IDENTIFY WITH COMMODORE PART NO. & APPLICABLE DASH NO. LOCATE APPROX AS SHOWN.

6 WHEN SHUNTS ARE OMITTED SUBSTITUTE JUMPER WIRE PREPARED PER DETAIL C, IN LOCATIONS SHOWN IN DETAIL A & D. THREE JUMPERS PER SH1 LOCATION, SIX JUMPERS PER SH2 LOCATION.

5 OMIT ON -05,-06,-11 & -12 CONFIGURATIONS ONLY.

4 ITEM 107 MAY BE SUBSTITUTED FOR ITEM 106; HOWEVER, PARTS SHALL NOT BE MIXED.

3. 54XXX, 54SXXX AND 54LSXXX MAY BE SUBSTITUTED FOR 74XXX, 74SXXX AND 74LSXXX.

2 USE BUSINESS ROM AT UD8.

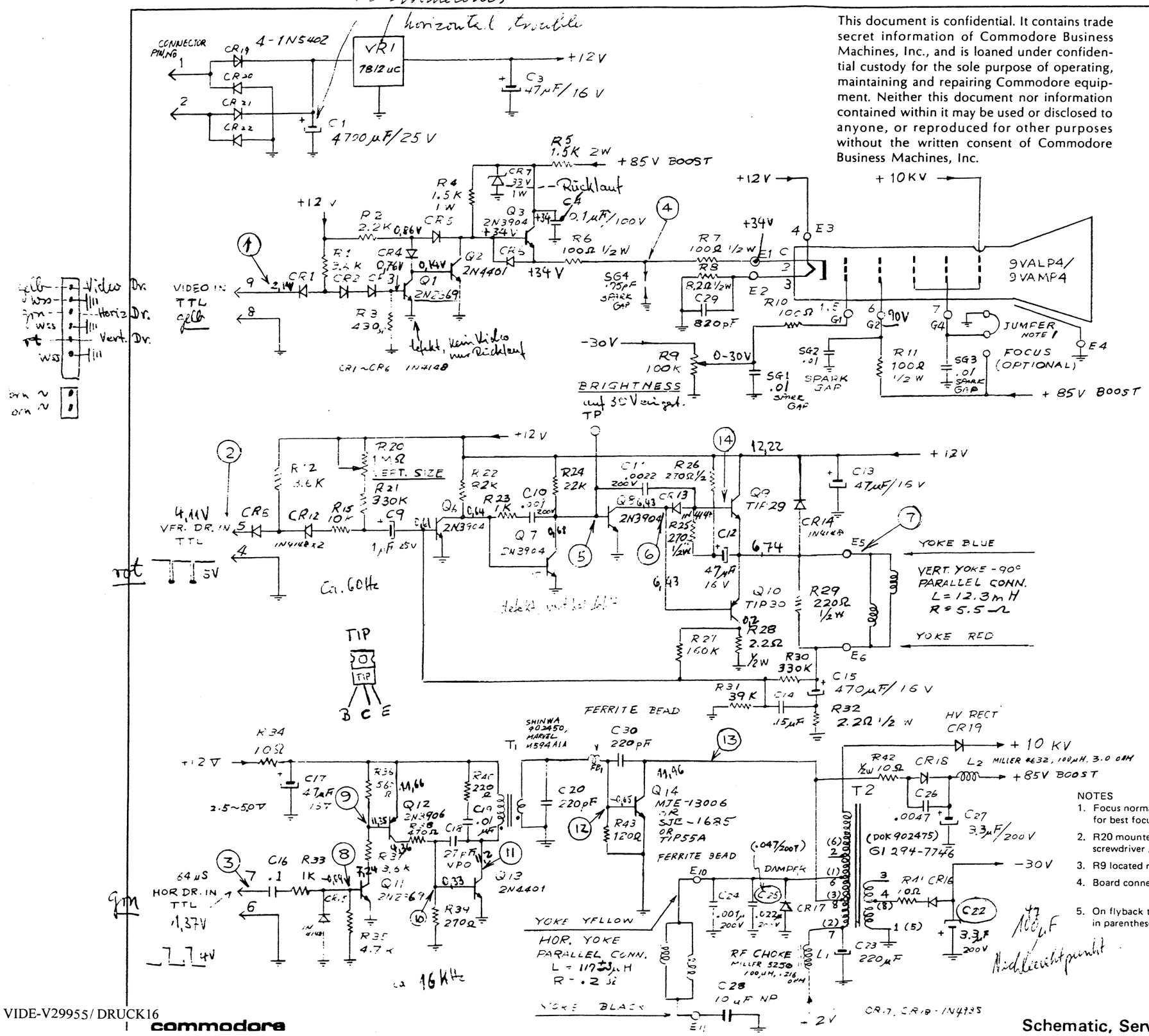
1 USE GRAPHIC ROM AT UD8.

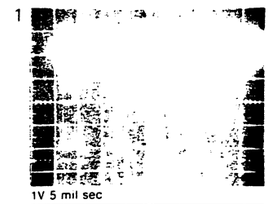
NOTES-UNLESS OTHERWISE SPECIFIED:

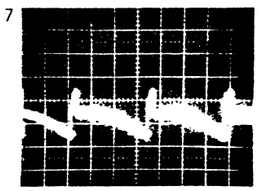
SHEET 6 OF 6 SIDE D ASSY DWG

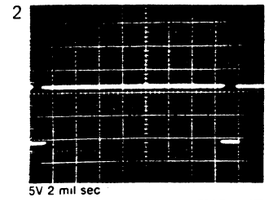
commodore	TITLE: DYNAMIC PET PC BOARD ASSY	DRAWN BY: G. CARROLL	DATE 1-16-79	ENGR: D. GARLD	1-18-79	SIZE B	DRAWING NUMBER 320351
		CHKD: B. SEILER		APPR: T. IWATA	1-18-79		SHEET OF 6

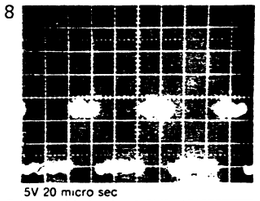
This document is confidential. It contains trade secret information of Commodore Business Machines, Inc., and is loaned under confidential custody for the sole purpose of operating, maintaining and repairing Commodore equipment. Neither this document nor information contained within it may be used or disclosed to anyone, or reproduced for other purposes without the written consent of Commodore Business Machines, Inc.

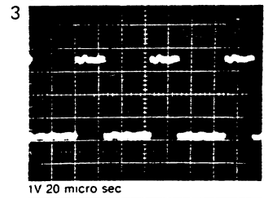


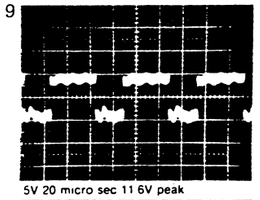

1
1V 5 mil sec


7
5V 5 mil sec

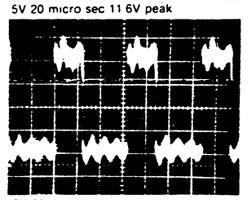

2
5V 2 mil sec

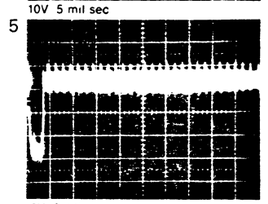

8
5V 20 micro sec

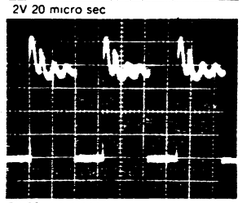

3
1V 20 micro sec

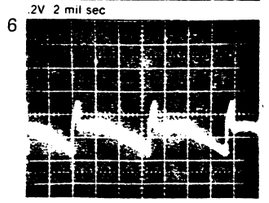

9
5V 20 micro sec 11.6V peak

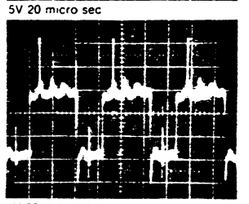
4
10V 5 mil sec

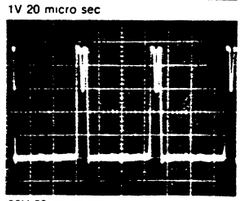

10
2V 20 micro sec

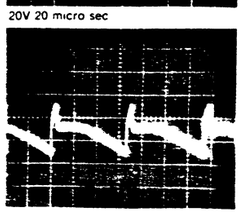

5
2V 2 mil sec


11
5V 20 micro sec


6
5V 5 mil sec


12
1V 20 micro sec


13
20V 20 micro sec


14

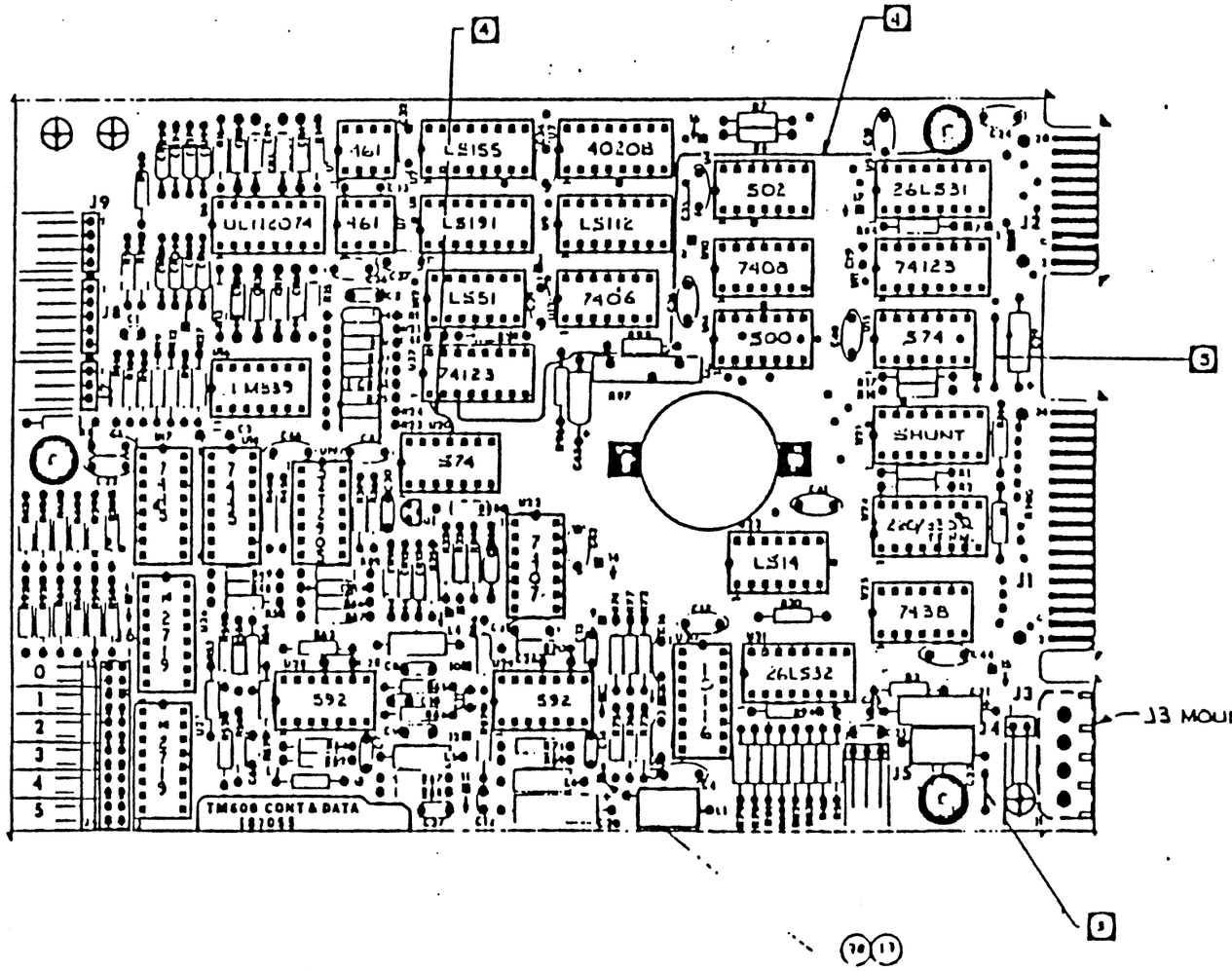
NOTES

1. Focus normally connected to GND for best focus. Voltage is selectable.
2. R20 mounted perpendicular to board screwdriver ADJ.
3. R9 located rear of PCB ¼" shaft by 2" long.
4. Board connector Molex Part Nos. 09-64-1021 09-64-1061
5. On flyback terminals and C25. The number in parentheses are for DOK version.

commodore

Schematic, Service, Display Circuit

REV	DESCRIPTION
B	REV A PER E.O. 530007
C	REV B PER E.O. 530015
D	REV C PER E.O. 530023
E	REV D PER E.O. 530071
F	REV E PER E.O. 530076
G	REV F PER E.O. 530132
J	REV G PER E.O. 530120
K	REV H PER E.O. 530156
L	REV J PER E.O. 530167
M	REV K PER E.O. 530178



DESIGNATOR ASSIGNMENT		
LAST USED		
C48	C19	C28 - BUS
CR24	CR10	
J9		
L6		L3-05
Q1		
R100	R17,R35	
TP19		
U32		

3 JUMPER PER E.O. 530156.

4 JUMPER PER E.O. 530024.

1 SOLDER #24 AWG UNINSULATED TIN COATED SOLID COPPER WIRE. MAY SUBSTITUTE 1/4W RESISTOR LEAD WIRE.

2. REF DOCUMENT: 187040-001 - CIRCUIT SCHEMATIC
187042-001 - ARTWORK

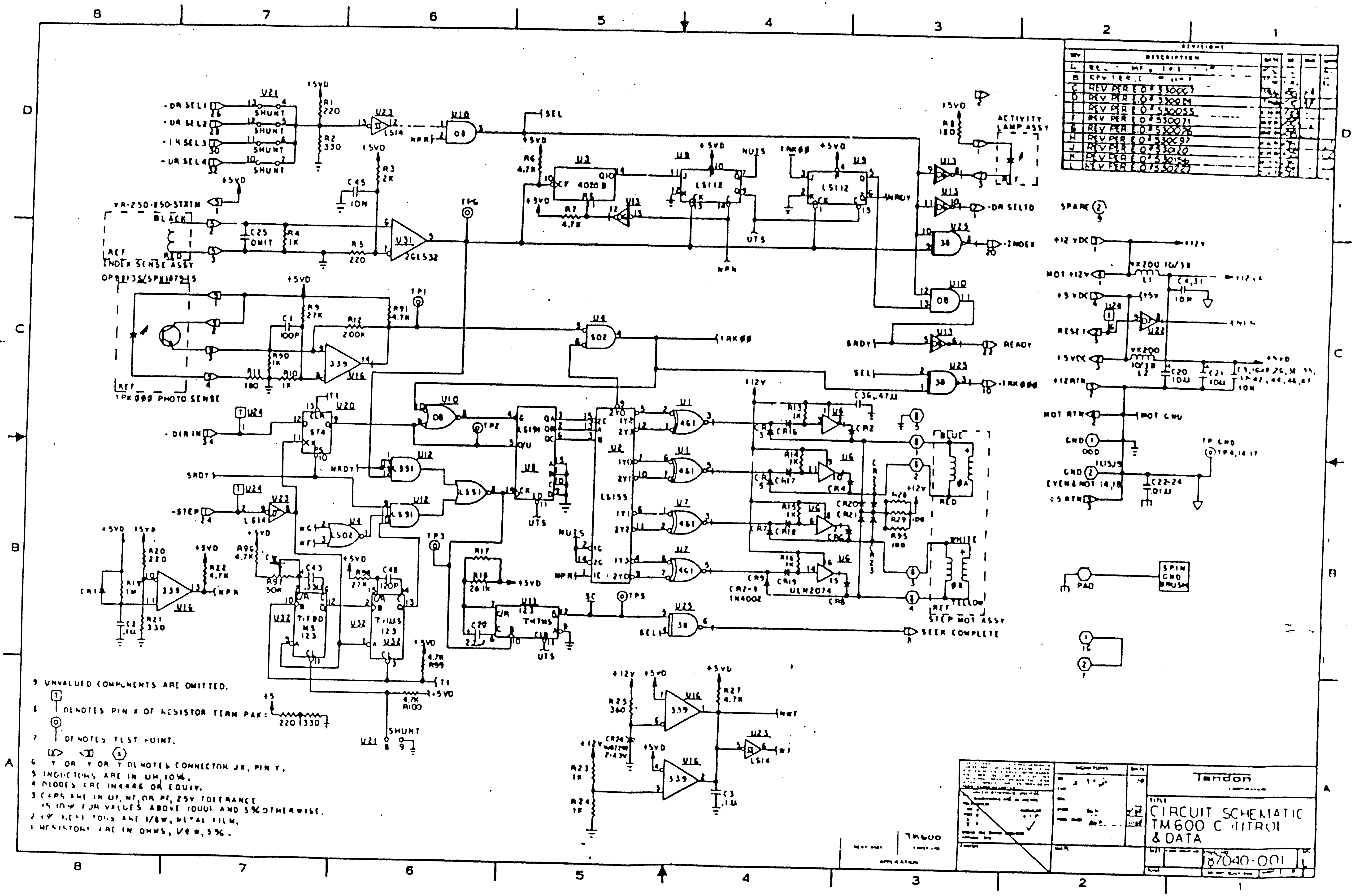
1. SEE SHEET 1 THRU 8 FOR PART LIST

Tandon

ASSEMBLY, TM600 CONTROL & DATA

D 187045-001 F

TM600


REVISIONS
REV PER E.O# 530067
REV PER E.O# 530024
REV PER E.O# 530055
REV PER E.O# 530071
REV PER E.O# 530097
ACTIVITY LAMP ASSY
INDEX SENSE ASSY
TPK000 PHOTO SENSE
STEP MOT ASSY
SEEK COMPLETE
READY
-DR SELTD
-INDEX
-TRK000
SPIN GND BRUSH
PAD
SPARE
9 UNVALUED COMPONENTS ARE OMITTED.
8 DENOTES PIN # OF RESISTOR TERM PAK:
7 DENOTES TEST POINT.
6 DENOTES CONNECTOR JX, PIN Y.
5 INDUCTORS ARE IN UH, 10%.
4 DIODES ARE IN4446 OR EQUIV.
3 CAPS ARE IN UF, NF, OR PF, 25V TOLERANCE IS 10% FOR VALUES ABOVE 1000P AND 5% OTHERWISE.
1 RESISTORS ARE IN OHMS, 1/4 W, 5%.
TM600
Tandon
CIRCUIT SCHEMATIC TM600 CONTROL & DATA
87040-001

VIDE-V29955/ DRUCK18

REVISIONS					
REV	DESCRIPTION	DATE	BY	CHK	APPD
	SEE SHEET 1 FOR REV.				

I.C LOCATION AND VOLTAGE CHART					
LOCATION	TYPE	+5	+12	GND	UNUSED
U14	74S00	14		7	1/4
U4	74LS02	14		7	1/4
U13	7406	14		7	1/6
U22	7407	14		7	
U23	74LS14	14		7	1/6
U25	7438	14		7	
U12	74LS51	14		7	1/2
U20,19	74S74	14		7	
U9	74LS112	16		8	
U11,32	74123	16		8	
U17,18	7445	16		8	
U2	74LS155	16		8	
U8	74LS191	16		8	
U5	26LS31	16		8	1/4
U31	26LS32	16		8	1/4
U30	10116	16		8	
U3	4020B	16		8	
U1,7	75461			4	
U28,29	592		NOTED	NOTED	
U19	Q2T2905		NOTED		
U6	UNL2074		U5,6	4,5,12,13	1/4
U16	LM339		3	12	
U24	220/330 PAR	16		8	6/4
U21	SHUNT				
U10	7408	14		7	1/4
U26,27	2719				

SHUNT PROGRAMMING

U21 LINK PINS	FUNCTION	FACTORY PROGRAMMED	USAGE
1-16	WRITE TERMINATOR	C	CLOSED FOR RADIAL DATA
2-15	READ TERMINATOR	C	CLOSE ONLY IF END DRIVE OF DAISY CHAIN DATA
3-14	HEAD SELECT 2*	603	CLOSE FOR MODEL TM 603 ONLY
4-13	DRIVE SELECT 1	C	CLOSE 1 OF 4 LINES ONLY.
5-12	DRIVE SELECT 2	C	CLOSED LINE
6-11	DRIVE SELECT 3	C	CORRESPONDS TO
7-10	DRIVE SELECT 4	C	DRIVE ADDRESS
8-9	RAMPED SEEK	O	CLOSE ONLY FOR RAMPED SEEK MODE
U24	TERMINATOR PAK		INSTALL IN THE DRIVE AT END OF DAISY CHAIN

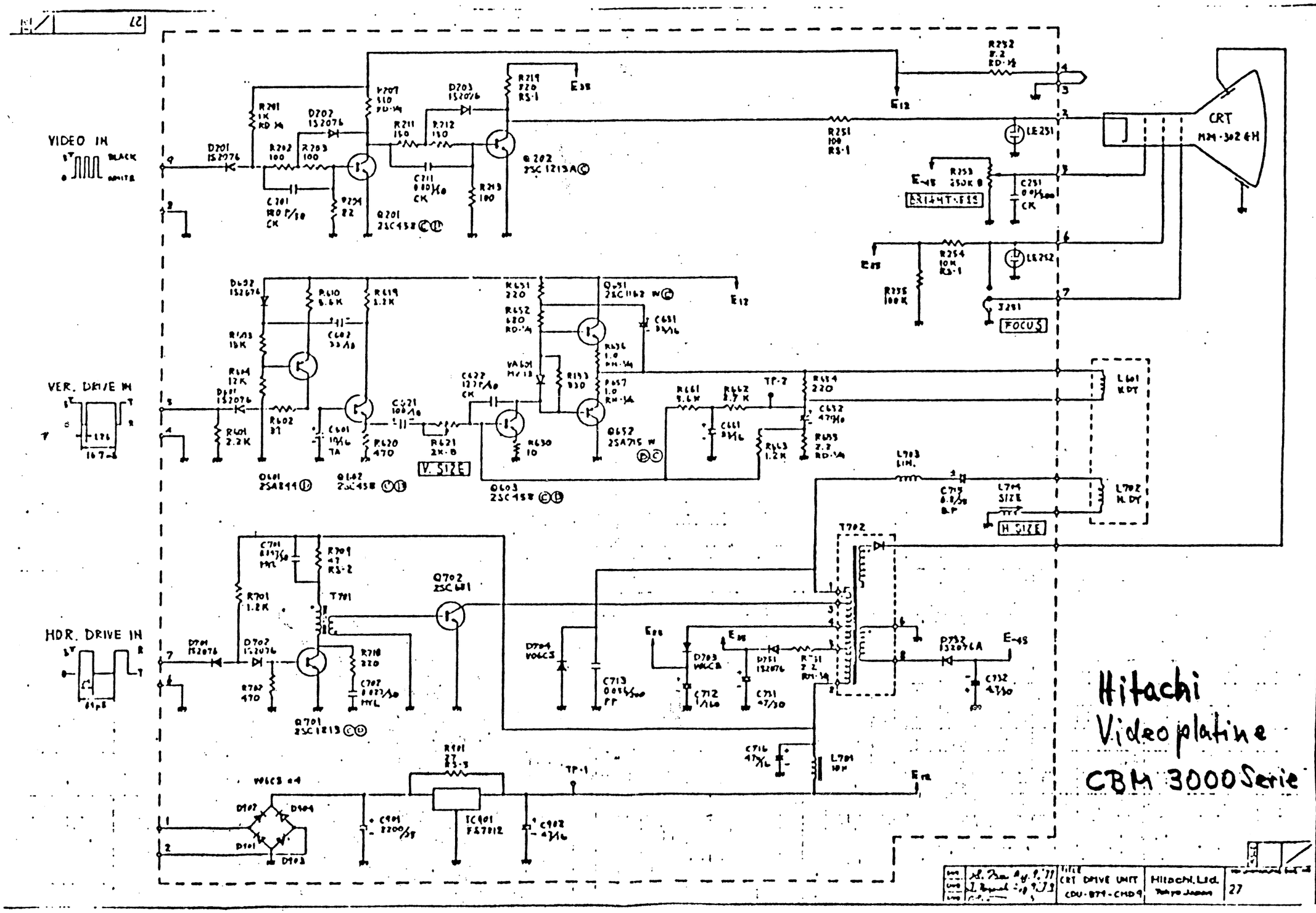
C = CLOSE O = OPEN
I = INSTALL 603 = CLOSE FOR TM603 ONLY

REFERENCE DESIGNATORS	
LAST USED	NOT USED
C30	
CR23	
L6	
R100	
Q1	
U32	
TP19	

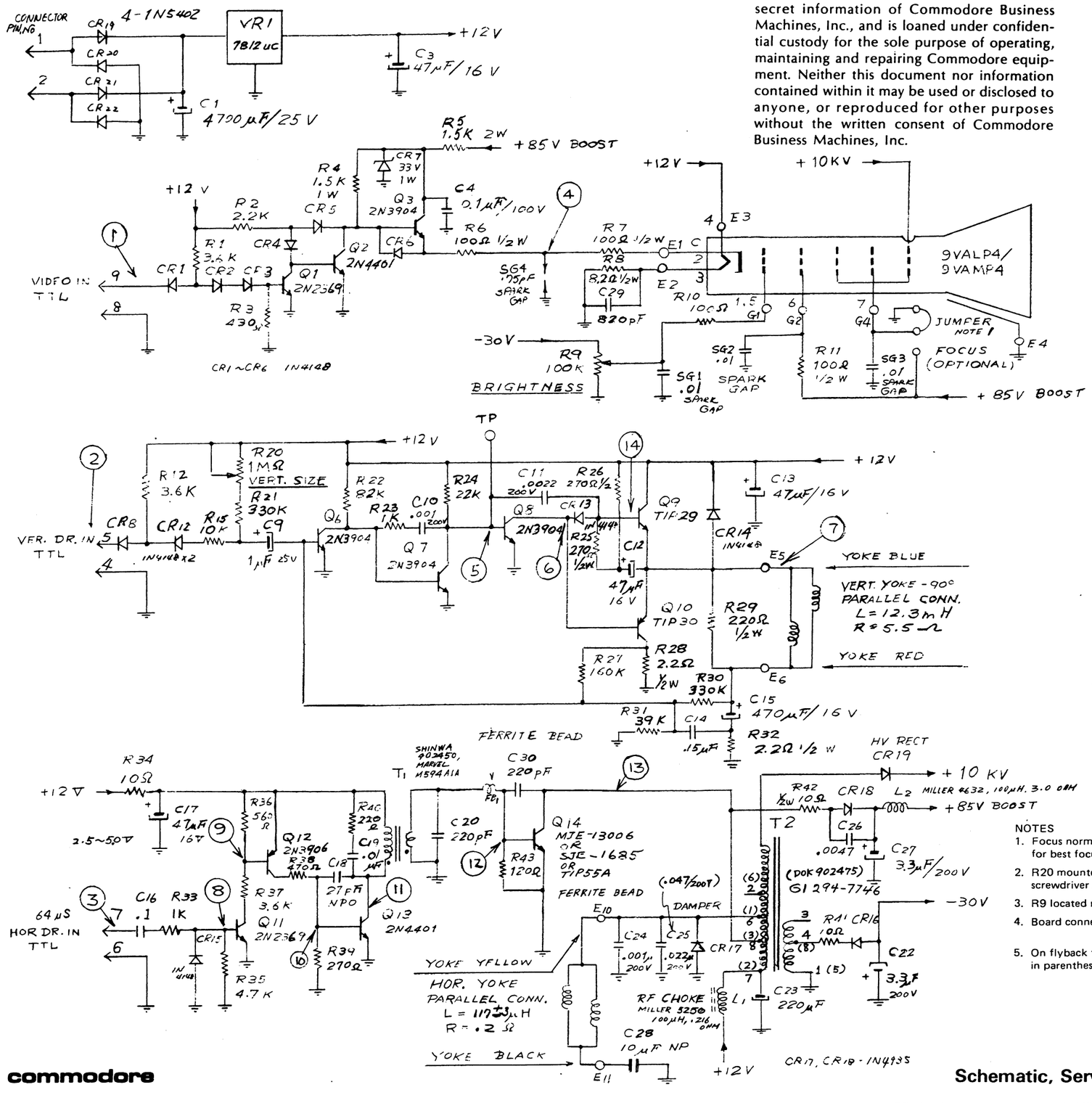
Tandon

CIRCUIT SCHEMATIC, TM600 CONTROL & DATA

187040-001

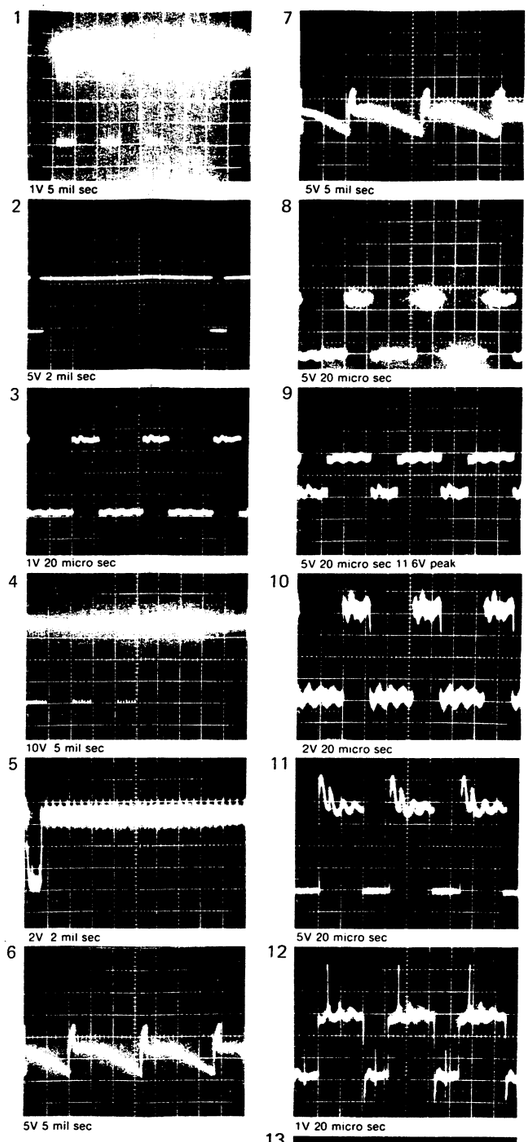

VIDEO IN
VER. DRIVE IN
HOR. DRIVE IN
CRT
M34-362 6H
FOCUS
H. SIZE
V. SIZE
Hitachi
Videoplatine
CBM 3000 Serie
CRT DRIVE UNIT
CDU-874-CM09
HITACHI, Ltd.
Tokyo Japan
27

This document is confidential. It contains trade secret information of Commodore Business Machines, Inc., and is loaned under confidential custody for the sole purpose of operating, maintaining and repairing Commodore equipment. Neither this document nor information contained within it may be used or disclosed to anyone, or reproduced for other purposes without the written consent of Commodore Business Machines, Inc.



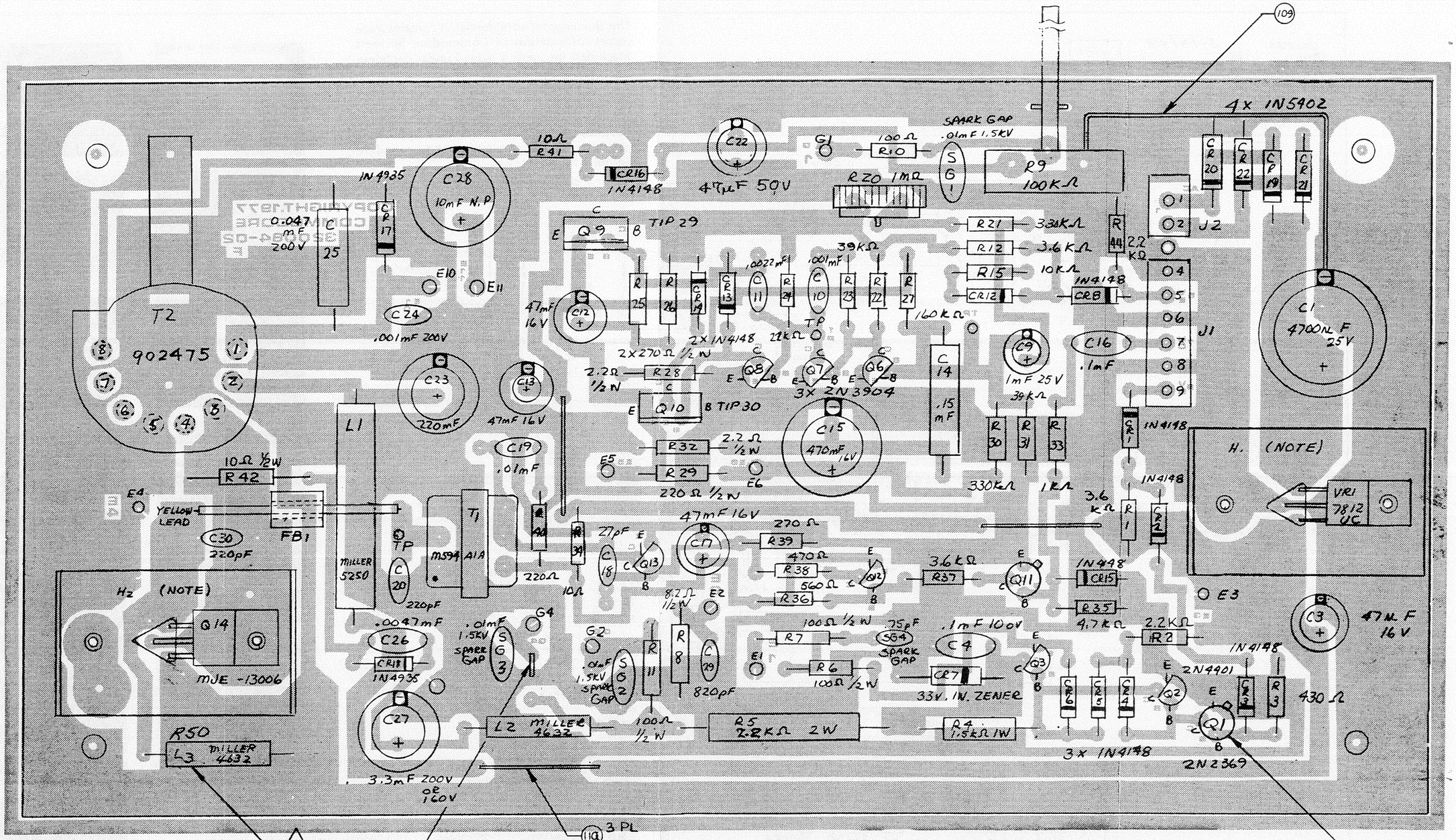
NOTES

1. Focus normally connected to GND for best focus. Voltage is selectable.
2. R20 mounted perpendicular to board screwdriver ADJ.
3. R9 located rear of PCB ¼" shaft by 2" long.
4. Board connector Molex Part Nos. 09-64-1021 09-64-1061
5. On flyback terminals and C25. The number in parentheses are for DOK version.

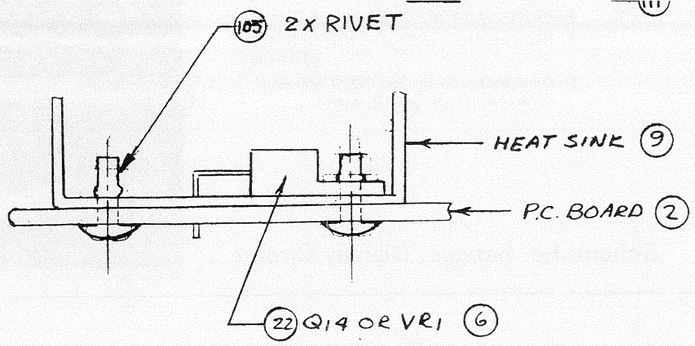


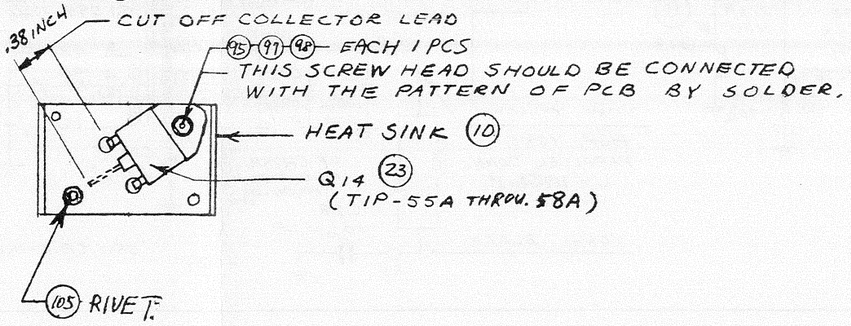
commodore

Schematic, Service, Display Circuit



NOTE




.38 INCH
CUT OFF COLLECTOR LEAD
75 77 48 EACH 1 PCS
THIS SCREW HEAD SHOULD BE CONNECTED WITH THE PATTERN OF PCB BY SOLDER.
HEAT SINK 10
Q14 23
(TIP-55A THRU. 58A)
105 RIVET

commodore

Display PCB Assembly